

MISSOURI. Conservationist

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[NOTE TO OUR READERS]

Design and Development: Enhancing Your Outdoor Experience

Helping put conservation on the ground and connecting people with nature are the main goals of the construction arm of the Department — the Design and Development Division. Whether you are floating Missouri's

rivers from a boat ramp or parking your vehicle prior to a hunting or birding trip on a conservation area, the Department's Design and Development staff have planned, designed, and built facilities to enhance your outdoor experience. Boat ramps, parking lots, and a variety of on-the-ground infrastructure make accessing conservation easier for Missourians.

Four major projects in process around the state include the August A. Busch Memorial Conservation Area Shooting Range renovation, wetland enhancements at Duck Creek and Fountain Grove conservation areas, and a new nature center at Shepherd of the Hills Hatchery. These major projects will bring a state-of-the-art shooting range to the Busch Conservation Area, replacing the Department's largest and oldest staffed shooting range. The wetland improvements at Duck Creek and Fountain Grove conservation areas will support a higher level of management well into this century. Expanding and improving the visitor and education facilities at Shepherd of the Hills in Branson will expand citizen conservation services and better serve Missourians for years into the future.

Through on-the-ground construction projects, Design and Development professionals help Department biologists and researchers better manage conservation areas for you. They are regularly working with area managers to maintain

ponds and lakes for fishing and roads for public access and repair storm and flood damage on conservation areas. Heavy equipment operators are often called upon to help with state-wide storm and flood recovery efforts. A major component of design and construction work includes keeping department fish hatcheries online and up to date. This complex coordination and work with Fisheries personnel has created a network of state-of-the-art fish hatcheries that provides quality fishing today and for years to come.

Carpenters, heavy equipment operators, facility maintenance staff, and their supervisors are front-line public service providers for buildings and outdoor facilities that help each of us have a better outdoor experience. The Department utilizes a blend of in-house expertise and contractors to build projects and put conservation on the ground in a timely manner.

Accessible, safe, and clean facilities await you at nature centers and hiking trails, shooting ranges throughout Missouri, and wetland conservation areas. Department staff takes great pride in offering you a first class conservation experience at these areas, including our department offices. If you see anything that you think can be repaired or improved, please let us know at the area itself, by calling your local office, or by dropping us a note at AskMDC@mdc.mo.gov.

The next time you visit one of your conservation areas, nature centers, shooting ranges, or local offices, remember there's a team of professionals working diligently behind the scenes to make sure you have a safe, enjoyable outdoor adventure.

Tim Ripperger, deputy director

Examples of design and construction work by the Department's Design and Development Division, from left: a flood-damaged parking lot needing to be replaced; renovated Apple Creek Shooting Range in southeast Missouri, and the beginning stages of a fishing lake being built at a conservation area.



FEATURES

- 10 **Rabbit Hunting: Getting Started**
by Mark Goodwin, photographs by Noppadol Paothong
Learning about and pursuing cottontails keeps us connected to the land
- 17 **The Fight Against White-Nose Syndrome**
by Bonnie Chasteen
New treatment offers hope for Missouri's threatened, beneficial cave bats
- 24 **The Evolution of a Bowhunter**
by Larry R. Beckett, artwork by David Besenger
Adapting to the demands of archery deer hunting takes time, skill, and humility

Cover: A white-tailed deer at Squaw Creek

National Wildlife Refuge in Mound City.

Photograph by Noppadol Paothong.

📷 500mm lens • f/5.6 • 1/500 sec • ISO 400

DEPARTMENTS

- 2 **Letters**
- 4 **Hunting & Fishing Calendar**
- 4 **Agent Notes**
- 5 **Ask MDC**
- 6 **News & Events**
- 30 **Plants & Animals**
- 32 **Places to Go**
- 33 **Discover Nature**

WHAT IS IT?

Our photographers have been busy exploring the intricacies of outdoor Missouri. See if you can guess this month's natural wonder. The answer is revealed on Page 8.



DAVID BRUNS

NATURE LOVERS

The joy your magazine gifts to me moves me to write. I am a nature lover trapped in urban-ia. Your magazine is my respite.

Lynn Ricci, St. Louis

Just wanted to let you know how much I enjoyed the articles *Outdoor Kaleidoscope* and *Just Add Water* in the August issue. I'm not a hunter or fisherman, but I do enjoy nature and the out-of-doors and appreciate the inclusion of these in your magazine. Thanks for all the work you do to raise awareness of our need to take care of our pretty blue planet.

Gloria Wethington, via email

GIRLS' HUNTER ED

Thank you for the three wonderful days that my granddaughter Georgia spent at this year's Girls' Hunter Education Camp. She came home full

of enthusiasm and new skills, as well as lots of happy experiences.

I hope that you will be able to continue this opportunity for many other girls. I am 83 and no longer hunt, except for our fine Missouri mushrooms. Georgia is my "bird dog" for chanterelles.

Also, it was good to meet our new Conservation Agent, Lexis Riter, at the camp. Things come full circle sometimes. When I graduated from college with a degree in zoology, neither Missouri nor Illinois employed women in that role. Change is good.

Nancy Hollingsworth, DeSoto

CROSSBOW HUNTING

Your analysis of archery hunters dropping off in their 40s fits me to a tee. I would still be hunting if I could use a crossbow. My shoulder is ruined and I can't pull a bow back. I went to the doctor to attempt to get a medical exemption, but it would

have required more testing and it took the wind out of my sails. I gave up and was resolved that I would never hunt another archery season when all my cousins come to our farm in north Missouri to hunt. I have been the "bring the four wheeler or truck to pick up the buck" guy for about six years now. A crossbow would put me back in the stand.

Clint Woods, via Facebook

Editors' Note: During its Aug. 19 meeting, the Conservation Commission gave initial approval for the use of crossbows for the 2016–2017 archery deer and turkey seasons. Missouri's rule-making process includes a 30-day public comment period. Comments related to the proposed regulation changes can be submitted online Oct. 2–31 at on.mo.gov/1QqDR6Z. The proposed amendments will be posted on the Web page after Sept. 15. The Commission will make its final decision on these proposed changes at its December meeting. With final approval, the regulation changes would become effective in March 2016 and implemented for the 2016–2017 deer hunting seasons.

RESTORATION PROJECT

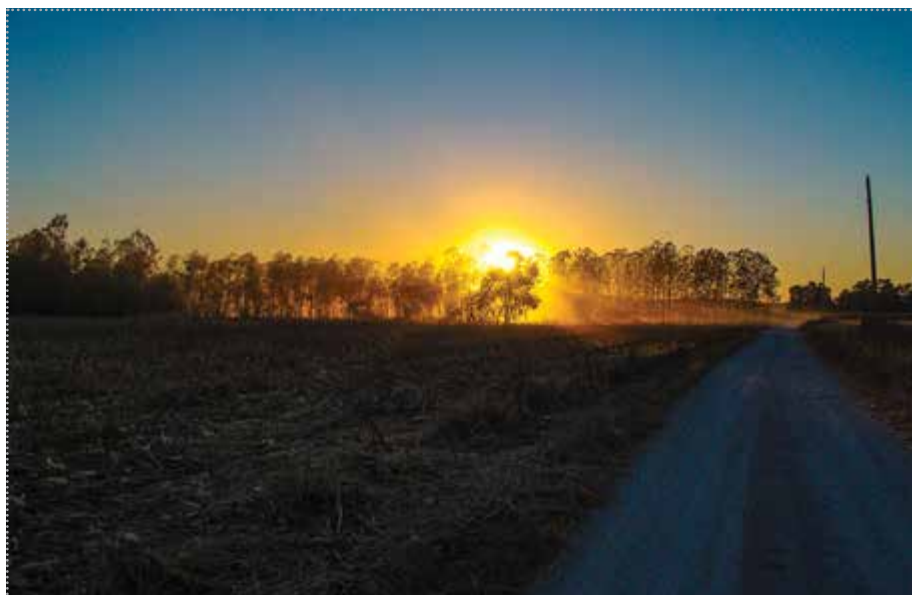
My wife and I enjoyed the article on eastern collared lizards in the June issue of the *Missouri Conservationist*. We have begun a restoration project on 104 acres in Ozark County that includes two glade areas. We could not be happier with the cooperation of the Conservation Department and, in particular, our local Private Land Conservationist Christin Byrd. Thank you and keep up the good work!

Shawn and Christina Taylor, Tecumseh

NATURE CENTERS

Just want to say how much I appreciate the programs available at the Runge Nature Center. I recently took a worm composting class and got to sort worms — how cool! I also went with Adventure Birding to look for nighthawks. We didn't see any nighthawks, but we did hear a great crested flycatcher and saw bats and a possum. Learned about Missouri wildflowers. Had a great time. The volunteers are awesome.

Christie Lundy, via Facebook



Reader Photo

SUNRISE, SUNSET

Jeff Ingram, of St. Charles County, captured this image of the setting sun at B. K. Leach Memorial Conservation Area in Lincoln County while scouting for archery deer season. B.K. Leach, primarily a wetland area bordering the Mississippi River, provides many outdoor recreational opportunities, from fishing to hunting to bird watching. Ingram is a science teacher and also teaches an elective class called Conservation and Ecology. "The class takes several field trips a year to conservation areas," said Ingram. "Our Conservation Department has fantastic resources for teachers and any outdoor lover."



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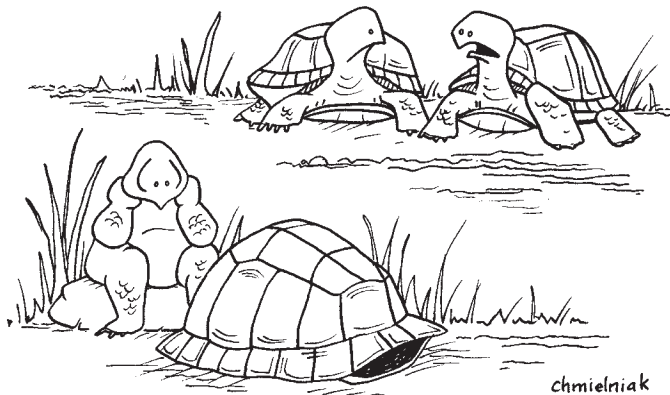
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"He has a terrible case of claustrophobia."

Agent Notes

Pass on the Tradition of Hunting

HUNTING IS A tradition in Missouri. For many, it is all about the experience and time spent with good friends and family. Passing on that tradition by mentoring a youth hunter can be both exciting and rewarding.

Youth portions of the firearms deer seasons are for people at least 6 years old, but not older than 15. If a youth is hunter-education certified and hunting with a resident or nonresident firearms deer or turkey hunting permit, he or she may hunt alone. However, if a youth is not hunter-education certified, he or she must hunt in the immediate presence of a properly permitted adult who is in possession of a valid hunter-education certification card or was born before Jan. 1, 1967.

Adult mentors may not hunt deer with a firearm during the youth portions of the firearms deer season. In addition, adults accompanying youths hunting deer must wear hunter orange. Regardless of age, the youth must be capable of holding, aiming, and shooting the firearm without assistance. As a mentor, you must understand the hunt is for the youth. They may miss, but it's all part of the experience. By teaching someone the proper methods of hunting, we can ensure that Missouri stays a great place to hunt for generations.



David McCorkell is the conservation agent for Monroe County. If you would like to contact the agent for your county, phone your regional conservation office listed on Page 3.

HUNTING & FISHING CALENDAR

FISHING	OPEN	CLOSE
Black Bass from Ozark Streams	05/23/15	02/29/16
Bullfrogs and Green Frogs	Sunset	Midnight
	06/30/15	10/31/15
Nongame Fish Giggling		
Impounded Waters	02/01/15	01/31/16
Streams	09/15/15	01/31/16
Paddlefish on the Mississippi River	09/15/15	12/15/15
Trout Parks (catch-and-keep)	03/01/15	10/31/15
HUNTING	OPEN	CLOSE
Coyote (restrictions apply during April, spring turkey season, and firearms deer season)	All year	None
Crow	11/01/15	03/03/16
Deer		
Archery	09/15/15	11/13/15
	11/25/15	01/15/16
Firearms		
Urban Zones Portion	10/09/15	10/12/15
Early Youth Portion	10/31/15	11/01/15
November Portion	11/14/15	11/24/15
Antlerless Portion (open areas only)	11/25/15	12/06/15
Alternative Methods Portion	12/19/15	12/29/15
Late Youth Portion	01/02/16	01/03/16
Doves	09/01/15	11/09/15
Groundhog (woodchuck)	05/11/15	12/15/15
Pheasant		
Youth	10/24/15	10/25/15
Regular	11/01/15	01/15/16
Quail		
Youth	10/24/15	10/25/15
Regular	11/01/15	01/15/16
Rabbit	10/01/15	02/15/16
Sora and Virginia rails	09/01/15	11/09/15
Squirrel	05/23/15	02/15/16
Turkey		
Archery	09/15/15	11/13/15
	11/25/15	01/15/16
Firearms	10/01/15	10/31/15
Waterfowl	see the <i>Waterfowl Hunting Digest</i> or on.mo.gov/1DChcmi	
Wilson's (common) snipe	09/01/15	12/16/15
Woodcock	10/15/15	11/28/15

TRAPPING	OPEN	CLOSE
Beaver and Nutria	11/15/15	03/31/16
Furbearers	11/15/15	01/31/16
Otters and Muskrats	11/15/15	02/20/16

For complete information about seasons, limits, methods, and restrictions, consult the *Wildlife Code* and the current summaries of *Missouri Hunting and Trapping Regulations* and *Missouri Fishing Regulations*, *The Spring Turkey Hunting Regulations and Information*, the *Fall Deer and Turkey Hunting Regulations and Information*, the *Waterfowl Hunting Digest*, and the *Migratory Bird Hunting Digest*. For more information, visit on.mo.gov/1Ucnlw or permit vendors.

Ask MDC

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Northern cardinal

What's wrong with this cardinal?

There could be many reasons why this cardinal has lost its feathers. Ornithologists have historically attributed the loss of plumage to either nutritional deficits or feather parasites picked up when a bird spends too much time tending to its young in the nest. Or the bird could be molting. This is the process of new feathers slowly pushing the old ones out. Most birds molt after nesting to rid themselves of unwanted mites and lice. Cardinals tend to molt from mid-August to late November.

However, other scientists have surmised a small percentage of cardinals may be genetically disposed to unusual

molt patterns, such as the one seen here. So it may not be an external factor — such as nutrition, lice, or mites — initiating the loss of feathers on this cardinal's scalp. Rather, a genetic factor may be at work.

Lastly, ornithologists believe a traumatic injury could be to blame.

We have discovered a den of red foxes near our home. It looks like they have mange. Should we be concerned?

Unfortunately, mange — a class of skin diseases caused by parasitic mites that embed themselves either in the animal's skin or hair follicles — is a

common occurrence in furbearers and is often fatal to red foxes. Veterinarians recommend people keep themselves and their pets a safe distance away from animals suspected of having the disease. If handling the animal is necessary, always wear gloves and wash hands and clothing thoroughly afterward.

Can you tell me more about this spider?

This is a crab spider. A member of the flowering crab spider genus, it has adapted to blend into its environment. This adaptation is called “crypsis” and can be used for predation or to avoid detection. Common methods of crypsis include camouflage, transparency, and mimicry.

This particular spider, as it crouches inside a Queen Anne's lace bloom, is practicing the art of camouflage. Not only do flowering crab spiders resemble the form of the flowers they inhabit, they also have the capacity to change color from white to yellow, depending upon the blossoms they choose.

Crab spiders don't use silk webs to capture their prey. Instead, they are ambushers, hiding and waiting for insects to fly or crawl to them. Unlike web-spinning spiders, crab spiders have good vision. When a bee or fly lands on a flower seeking nectar, the crab spider attacks and injects venom into its prey.



Crab spider



Smallmouth bass

Rock bass (goggle eye)

Department Seeking Public Input on Changes for Smallmouth and Rock Bass

Smallmouth bass and rock bass — also called goggle eye — are very popular with anglers on Missouri's Ozark streams. However, research by the Missouri Department of Conservation shows both species grow slowly and many do not reach a quality size before dying from natural causes or being caught by anglers.

Many anglers surveyed by the Department have reported fishing quality for rock bass has declined over the past decade. Many anglers also have said the minimum-length limits and daily limits for smallmouth on rivers and creeks vary and can be complicated.

According to fishing regulations, no statewide minimum-length limit exists for rock bass, but some rivers and creeks located in the Department's special management areas have

an 8-inch minimum. Smallmouth bass have a statewide minimum-length limit of 12 inches with a six-fish daily limit, while special management areas have a minimum-length limit of 15 or 18 inches with a daily limit of one or two fish.

As a result of research and angler feedback, the Department is proposing changes to fishing regulations for these two popular game fish. These changes would help grow smallmouth and rock bass while simplifying regulations for smallmouth in Department special management areas.

For rock bass, research shows a majority of anglers favor a single, statewide minimum-length limit. The Department will propose setting it at 7 inches.

For smallmouth bass, the proposed changes would maintain the current statewide length

limit of 12 inches with a daily limit of six fish, but change all special management areas to a 15-inch minimum length limit with a daily limit of one smallmouth bass.

Proposed regulations would also create a new special management area on the Current River and expand the special management areas on the Big Piney, Big River, Jacks Fork, and Meramec rivers.

The Department is seeking public input on these potential regulation changes and will host a series of open houses around the state to provide more information, answer questions, and receive public comments. The Department invites anglers and others to the following open houses from 6–8 p.m.:

- **Sept. 29:** Van Buren; The River Centre at The Landing, 110 E. Carter St.
- **Oct. 1:** Blue Springs; Burr Oak Woods Nature Center, 1401 N.W. Park Road
- **Oct. 5:** St. Robert; St. Robert Community Center, 114 J.H. Williamson Drive
- **Oct. 6:** Farmington; Memorial United Methodist Church, 425 North St.
- **Oct. 8:** Kirkwood; Powder Valley Conservation Nature Center, 11715 Cragwood Road
- **Oct. 13:** Springfield; Springfield Conservation Nature Center, 4601 S. Nature Center Way
- **Oct. 15:** Neosho; National Fish Hatchery, 520 Park St.
- **Oct. 19:** Columbia; the Department's Central Regional Office and Conservation Research Center, 3500 E. Gans Road

Bedell Reappointed to Conservation Commission

Gov. Jay Nixon announced the reappointment of Don C. Bedell of Sikeston to the Missouri Conservation Commission.

"Don Bedell's service on the Conservation Commission since 2009, including a term as chair, has been exemplary, cementing Missouri's role as the nationwide leader in conservation," Nixon said.

During the past six years with Bedell as a member, Nixon said the Missouri Conservation Commission has seen record harvests of wildlife and increased numbers of participants in outdoor conservation-related activities, par-



Conservation Commissioner Don C. Bedell

ticularly among Missouri's youth, minority, and disabled populations.

Bedell said serving Missouri citizens has been an honor.

"The combined work and dedication of Department staff and Missouri citizens has resulted in some great conservation achievements over the last six years," he said. "The Governor, First Lady, and my fellow Commissioners are great conservationists who continue to help Missouri be a national and world leader in conservation. I am both flattered and humbled to serve a second term on the Conservation Commission."

Bedell, a Republican, is a businessman, conservationist, and sportsman. He is a Life Sponsor of Ducks Unlimited, a Life Member of Quail Unlimited, Inc., a Sustaining Member of the Conservation Federation of Missouri, a Diamond Sponsor of the National Wild Turkey Federation, and a Life Member of Safari Club International.

He holds a Bachelor of Science degree in agriculture and a Master of Science degree in animal nutrition with a double minor in biochemistry and wildlife. He is owner of B&B Boats and Bikes in Sikeston and B&R Marine & Cycle in Batesville, Arkansas. He has founded and run numerous other businesses, primarily in healthcare/nursing home management. He serves on many boards of directors and is an advisory board member to the Southeast Missouri State University College of Health and Human Services.

The four members of the Conservation Commission serve six-year terms. Commissioner responsibilities are statewide and include serving as the Conservation Department's policy makers; approving changes to *Wildlife Code* regulations,

strategic planning, budget development, and major expenditure decisions; and appointing the director of the Conservation Department.

The Governor appointed Bedell to a term that ends July 1, 2021. The appointment is subject to confirmation by the Missouri Senate.

Twin Elk Born in Missouri

October is a wonderful time to take a scenic drive through Missouri's elk restoration area in the Ozarks. Not only will the state's autumn foliage likely be at its glorious peak, visitors may also catch a glimpse of two newcomers, twin elk calves born in July at Peck Ranch Conservation Area (CA). And since elk breed in the fall, visitors could hear males bugling as they advertise their fitness to potential mates and warn other competitors away.

Elk twins are uncommon, especially in relation to other members of the deer family, said Elk Program Manager David Hasenbeck.

Less than 1 percent of elk females typically have twins in a given year, Hasenbeck noted.

"It's a good indicator of quality habitat for the herd," he said.

Elk breeding, which starts in late September, occurs earlier than the deer rut.

"Given the longer gestation period of elk, earlier breeding is needed to ensure that the calves will be born during the peak nutritional period of spring," Resource Scientist Barbara Keller said.

Once common throughout most of Missouri, elk disappeared from the state about 150 years ago due to over harvest and habitat loss. The Missouri Department of Conservation reintroduced



CONSERVATION COMMISSION ACTIONS

The August Commission meeting featured presentations and discussions regarding 2016–2017 fall deer and turkey season structure, methods, and limits, 2015–2016 waterfowl season dates and limits, the Missouri Outdoor Recreational Access Program, fiscal year 2016 major construction projects status report, and fiscal year 2015 year-end review of revenue and expenditure trends. A summary of actions taken during the Aug. 18–19 meeting for the benefit and protection of forests, fish, and wildlife, and the citizens who enjoy them includes:

- » **Approved** recommendations for 2016–2017 fall deer and turkey season structure, methods, and limits.
- » **Approved** recommendations for proposed amendments to the *Wildlife Code* from the mid-year Code review.
- » **Approved** recommendations for season dates and limits for the 2015–2016 waterfowl season.
- » **Approved** initiation of a forest certification program and certification of all forested lands owned by the Conservation Commission under the Sustainable Forestry Initiative and/or the Forest Stewardship Council.
- » **Approved** a contract with Demien Construction Company of Wentzville, Missouri, for the construction of the August A. Busch Memorial Conservation Area Shooting Range Complex Renovation Phase II Project in St. Charles County.
- » **Approved** submission of estimates of the Department's spending authority for the next fiscal year to the Governor's budget director.
- » **Approved** the purchase of 1.09 acres and the metal building situated thereon containing 4,878 square feet of office and shop space located in Wright County.

The next Conservation Commission meeting is Oct. 22 and 23. For more information, visit on.mo.gov/1li700p or call your regional Conservation office (phone numbers on Page 3).

(continued from Page 7)

an elk herd to a 346-square-mile restoration zone between Ellington and Winona in 2011.

To see the herd, visitors are invited to participate in two self-guided driving tours through the Peck Ranch and Current River conservation areas. Although catching a glimpse of the elk isn't guaranteed, a beautiful drive through fields, forests, and glades is a certainty.

Peck Ranch is located near Winona in Shannon County with entrances off both Routes 19 and 60. The tour begins at the office and is marked along the way. It is open sunrise to sunset seven days a week, except during managed deer hunts, fall firearms season, and in the event roads are closed due to weather.

This fall, managed hunts are scheduled at Peck Ranch Oct. 10–11, 24–26, and Dec. 5–6. The area will also be closed for fall firearms deer season Oct. 31–Nov. 1 and Nov. 14–24.

No similar conflicts exist for the Current River CA, where the driving tour runs from Highway 106 to South Road out of Ellington. The route includes roads 1, 9, and 10, past the shooting range, the log cabin, and the fire tower.

Visitors' best chances of seeing elk are the hours right after sunrise and before sunset. For more information about the Department's driving tours, visit on.mo.gov/INTb37P.

Conservation Area Regulations Change

A series of proposed changes could simplify Missouri's conservation area deer regulations and give Missouri Department of Conservation staff more flexibility to manage local deer herds.

Specifically, the Department is considering changing the hunting methods allowed on some conservation areas for the 2016–2017 seasons.

The public is invited to provide input. To see a list of the 32 conservation areas with proposed hunting method changes, and to provide comments, visit on.mo.gov/1Vs7Cgv. The comment period closes Nov. 30.

Historically, the Department reevaluates the structure of conservation area regulations every five to 10 years. This time the working group waited until the results of a hunter satisfaction survey were complete.

"Providing quality hunting opportunities on conservation areas is important because approximately 10 percent of all Missouri deer hunters hunt only on public land and as many as 25 percent hunt on public land at least once during the year," Wildlife Management Biologist Dave Darrow said.

Currently, deer regulation options for the state's conservation areas fall into six different categories. But over the years, managers, agents, and hunters alike have found the system confusing. The new regulations trim the categories from six to three hunting methods, including:

- Archery methods only
- Archery and muzzleloader methods only
- Any legal method

The new system also clarifies — with a "yes" or a "no" — if antlerless permits may be used on the area.

The proposed changes aren't expected to have a widespread impact. Of the state's 568 conservation areas, only 32 — or fewer than 6 percent — will be affected. Although the number might be small, said Darrow, each location is important to someone.

"Changing methodologies on conservation areas is a big deal because it might be the only conservation area close to someone," he said. "If someone is used to hunting with a rifle, they may be concerned if the area is changed to 'archery and muzzleloading methods only.'"

Commission Approves Changes to 2016–2017 Deer Regulations

The Missouri Conservation Commission set season dates and limits for the 2016–2017 fall deer season and gave initial approval to several deer-hunting regulation changes proposed by the Missouri Department of Conservation at the Commission's August meeting in Jefferson City.



WHAT IS IT?

Bearded Tooth Mushroom | *Hericium erinaceus*

The bearded tooth can be found statewide from August to November on trunks of living deciduous trees and fallen trees and logs. It is a choice edible mushroom, but it is tasty only when young and fresh. It gets sour and bitter as it matures. This species lives as a network of cells (mycelium) within dead trees as a scavenger, and in living trees as a parasite, digesting and decomposing the wood. When ready to reproduce, the mycelium develops the beardlike "fruiting body" that emerges from the wood — this is the reproductive structure. Spores are produced in the "teeth" and are released to begin new mycelia elsewhere. —photograph by David Bruns

DID YOU KNOW?

Conservation enriches our economy and quality of life.

Conservation More Than Pays its Way

Every year in Missouri ...

- » **500,000** people hunt.
- » **1 million** people fish.
- » **1.7 million** people view wildlife.
- » Hunters, anglers, and wildlife viewers combined spend **2.6 billion dollars**.
- » Fish and wildlife recreation creates **4 billion dollars** in economic impacts.
- » The forest products industry creates **8 billion dollars** in economic impacts.
- » Fish and wildlife recreation and the forest products industry combined support **99,000 jobs**.
- » Fish and wildlife recreation spending and the forest products industry generate **507 million dollars** of state and local taxes.
- » The Missouri Department of Conservation's annual budget is **less than one percent** of the State of Missouri government's total budget. The Department of Conservation receives no general revenue from the state.
- » The fish and wildlife recreation and the forest products industry **generate more sales tax than the Department of Conservation receives each year** from the one-eighth of one percent sales tax.

Approved changes to fall deer season structure for 2016–2017 include:

- Maintaining the current timing of the November portion and reducing the length from 11 to nine days
- Expanding the late youth portion to three days beginning the first Friday after Thanksgiving
- Reducing the length of the antlerless portion from 12 to three days to begin on the first Friday in December
- Eliminating the urban zones portion

Proposed regulation changes to fall deer season structure for 2016–17 include:

- Allowing crossbows as a legal method during the archery deer and turkey seasons
- Reducing the limit of antlered deer from three to two during the combined archery and firearms deer hunting season, with no more than one antlered deer taken during the firearms deer hunting season
- Removing the hunting method exemption requirement related to crossbows

Missouri's rule-making process includes a 30-day public comment period. Comments related to the proposed regulation changes can be submitted online to the Conservation Department from Oct. 2–31 at on.mo.gov/1NJkkzZ. If individuals are unable to submit comments via the on-line system, written comments on specific proposals can be sent directly to Regulations Committee Chairman, PO Box 180, Jefferson City, MO 65102-0180. Full verbiage of the proposed amendments is posted on the Department's website.

The Commission will make its final decision on these proposed changes at its December meeting. With final approval, the regulation changes would become effective in March 2016 and implemented for the 2016–2017 deer hunting seasons.

2016–2017 Deer Hunting Season Dates

Archery Season:

- Sept. 15–Nov. 11, 2016
- Nov. 21, 2016–Jan. 15, 2017

Firearms Season:

- Early Youth Portion: Oct. 29–30, 2016
- November Portion: Nov. 12–20, 2016
- Late Youth Portion: Nov. 25–27, 2016
- Antlerless Portion: Dec. 2–4, 2016

- Alternative Methods Portion:
Dec. 24, 2016–Jan. 3, 2017

Waterfowl Seasons Set

The Conservation Commission approved the following 2015–2016 waterfowl hunting seasons at its August meeting.

Youth Season:

- North Zone: Oct. 24–25
- Middle Zone: Oct. 31–Nov. 1
- South Zone: Nov. 21–22

Regular Duck Season:

- North Zone: Oct. 31–Dec. 29
- Middle Zone: Nov. 7–Jan. 5
- South Zone: Nov. 26–Jan. 24

Shooting Hours: One half-hour before sunrise to sunset.

Bag Limit: Six ducks daily with species restrictions of:

- 1 black duck
- 2 canvasbacks (increased from 1 last year)

- 2 hooded mergansers
- 4 mallards (no more than 2 females)
- 1 mottled duck
- 2 pintails
- 2 redheads
- 3 scaup
- 3 wood ducks

Possession Limit: Three times the daily bag limit (in total 18), including species restrictions.

Goose Season:

- **Snow, blue, and Ross's geese:**
Statewide, Oct. 31–Jan. 31 (93 days)
- **White-fronted geese:**
Statewide, Nov. 7–Jan. 31 (86 days)
- **Canada geese and brant:**
Statewide, Oct. 3–11 (9 days) and
Nov. 26–Jan. 31 (67 days)

Further details on waterfowl hunting regulations are available in the *2015–2016 Waterfowl Hunting Digest*, which will be available from hunting permit vendors and at on.mo.gov/1KnFUJU.



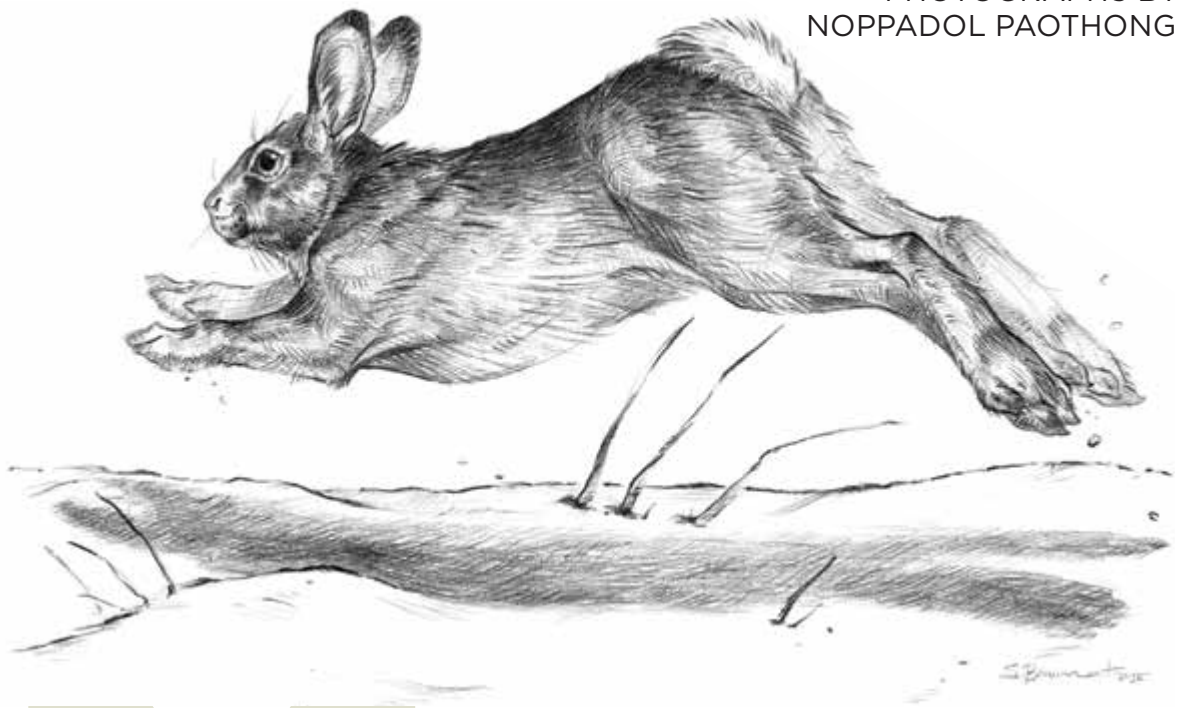
RABBIT HUNTING:

Getting Started

Learning about and pursuing cottontails keeps us connected to the land

BY MARK GOODWIN

PHOTOGRAPHS BY
NOPPADOL PAOTHONG



MEAT FOR THE TABLE. IN DECADES PAST, THAT'S WHAT RABBIT HUNTING meant for many families across rural Missouri. With a shotgun or .22 rifle, and maybe the companionship of the family dog, a hunter could often, by walking along brushy fencerows, provide supper for his family. Fencerow chicken — that's what some folks called eastern cottontails.

Today, few people in Missouri hunt rabbits out of necessity. We can get all the chicken — along with most of the meat — we need from the supermarket, which is both good and efficient. In doing so, however, we can easily lose our connection with the land.

ILLUSTRATION BY SHANNON BEAUMONT

Hunting allows people to take part in and understand nature's designs. Rabbits provide one of the best hunting opportunities in the Show-Me State. They occur statewide, are often common on public hunting areas, and hunting rabbits is simple and can require a minimum of equipment. If you want to get started rabbit hunting, here are some tips.

A Little Biology

Learning about game animals improves hunting success and deepens appreciation of nature. Let's start with the natural history of the eastern cottontail.



Cottontails are highly adaptable and occur in a variety of areas. They thrive best in open, brushy terrain where two habitats meet, such as where brushy fields and woods come together — what biologists call “edge habitat.” In ideal habitat, a cottontail's home range will average between 1 and 5 acres. In poorer habitat, home range may be as much as 15 acres. Though cottontails can be seen in the open, they are typically not far from cover, such as brush piles, high grass, overgrown fencerows, or foundations of old buildings.

Cottontails are herbivores and eat a wide variety of grasses, sedges, and herbs. Cultivated plants in their diet include clovers, alfalfa, soybeans, and wheat. When heavy snow covers their usual food, cottontails consume the buds, bark, and twigs of woody plants.

Many predators eat cottontails, including hawks, owls, foxes, coyotes, minks, weasels, dogs, cats, snakes, bobcats, and humans. As an offset to this predation, cottontails produce lots of offspring. Their breeding season in Missouri extends from early March through September, with a maximum of six litters. Gestation is 26 to 30 days. Litter size ranges from one to nine, with four or five the norm. An average female produces 16 young per breeding season.

Hunting Gear

To bag rabbits, some hunters use .22 rifles. The range of a .22, however, can pose safety problems, particularly if several people are hunting together. Most rabbit hunters carry shotguns. Smaller gauges, such as .410 and 28 gauges, full choked and loaded with shells holding number 4 shot, are most popular. Heavy shot loads are not necessary to cleanly kill rabbits.

Though **cottontail rabbits** can be seen in the open, they are typically not far from cover.



Larger shot size reduces the number of pellets and, accordingly, reduces the amount of meat ruined by pellets.

You will need a hunter-orange game vest to carry shells and the rabbits you bag. Hunter-orange cap and clothing is not required to hunt rabbits but is highly recommended. The heavy cover where rabbits hide can obscure hunters. Hunter orange greatly increases a hunter's visibility and is vital for safe hunting, especially if several people are hunting together.

Brush pants, chaps, or heavy overalls designed to be brier-proof are also highly recommended. Rabbits frequent blackberry and greenbrier thickets. Walking through such spots in blue jeans can prove painful.

Beagles

For many rabbit hunters, the true joy of the hunt is watching and listening to beagles run rabbits. Many a hunter, after first experiencing the thrill of rabbit hunting with skilled beagles, has thought, "This is such great fun, I need to get a beagle or two!" That is understandable, but be informed. You can buy mature beagles, well bred, well trained, and proven as skilled hunters, but they can be expensive. Moreover, beagles bred for hunting are just that — hunting animals. They are cute, they wag their tails, and they can be affectionate. But they are geared to hunt.

If you live in the country, it doesn't work to let beagles out all day. Hunting beagles, let run free, will get on a track, and with their nose to

Hunter orange greatly increases a hunter's visibility and is vital for safe hunting. Brush pants, chaps, or heavy overalls designed to be brier-proof are highly recommended.

Beagles make for great hunting companions, but owning one requires a knowledge of training. Pups must learn to hunt.

the ground, they'll be off. They pay no mind to roads and are at high risk of being hit by a vehicle. Moreover, if let run free, beagles learn to be independent and often start running critters other than rabbits — mainly deer. Some people don't like the thought of dogs being penned up, but that's how beagles bred for hunting need to be kept. Let out frequently and allowed to run only rabbits, they develop a sense of teamwork with their owners.

Owning a hunting beagle also requires a knowledge of training. Even trained beagles can develop bad habits. And pups, even out of

parents that are proven hunters, must learn to hunt. A well-bred beagle pup, put on the ground with seasoned rabbit dogs, has a good chance of becoming a skilled hunter by learning from the mature dogs. But again, pups can develop bad habits, such as running deer, backtracking rabbits, and barking when not on track. Eliminating these flaws requires training.

Owning quality hunting beagles is a source of pride and great joy, but it involves expense, work, knowledge, and commitment. If you want to get hunting beagles, proceed with these facts in mind.



Safety and How-To Information

As with all hunting, the number-one key is having a good hunting spot. If you have access to ground that supports lots of rabbits — and ground that offers enough open areas so you can see rabbits when you jump them — good hunting awaits.

You have two options: hunting with beagles or without. Dogless, you jump rabbits yourself by kicking brush piles and other bits of cover that might hold rabbits. A good time for this type of hunting is when snow is on the ground, so you can focus your hunting efforts where you see lots of tracks. Snow also makes it easier to spot rabbits when you jump them.

With beagles, when the dogs jump a rabbit and no shot is offered, hunters spread out in the vicinity of where the rabbit jumped and wait for the dogs to trail the rabbit. If the rabbit does not duck into a hole or other cover where the dogs can't reach it, the rabbit will likely circle back to where it was first jumped. This is the real excitement of rabbit hunting. Listening to the beagles, out of sight, barking on track.

When the dogs approach your location, this is the time to be alert. The rabbit is probably coming your way, just ahead of the dogs. It's also the time to have safety foremost in mind. Rabbits live in thick cover. To an unsafe, excited hunter, a beagle working through thick cover can appear as a rabbit. Crucial, too, is being aware of other hunters' locations for safe fields of fire.

Another important aspect of rabbit hunting concerns population management. The best rabbit-hunting spots start with ideal habitat and proper management. All rabbit populations, even those in ideal habitat, will suffer under relentless hunting pressure. Non-human predators, such as foxes, eat a variety of



prey. Humans, on the other hand, continually hunting only rabbits with trained beagles during a season can reduce populations. Knowledgeable rabbit hunters, wishing to keep their hunting spots good year after year, work to maintain good rabbit habitat and limit harvest in order to leave plenty of rabbits to breed and replenish populations.

A well-bred beagle pup, put on the ground with seasoned rabbit dogs, has a good chance of becoming a skilled hunter.

Learn More, Find Rabbit Hunting Areas, and Know the Regs

Learn more about getting started rabbit hunting at on.mo.gov/1I5ir1j. There you'll find more information about hunting, habitat management, and population dynamics. Browse featured rabbit hunting areas, and study the latest regulations before you go afield.

Cleaning and Cooking

Rabbits are easy to clean. With poultry shears or a hatchet, cut off the head and feet. Make a cut



Rabbit season starts Oct. 1 and runs through Feb. 15.

through the skin at the center of the back, and with both hands, peel the skin off the carcass. Rabbit skin peels off easily, and loose fur that clings to the meat rinses off easily in cold water.

With the skin removed, take the tip of a sharp knife, insert it just below the rib cage, and make a cut all the way to the end of the abdomen, taking care not to puncture the internal organs. Split the pelvis with the knife, taking care not to puncture the urinary bladder if it is full. While wearing rubber gloves, remove all internal organs, then cut the rabbit into five pieces: two hind legs, two front legs, and the back. Discard the ribs and area of the backbone where the ribs attach.

Rabbit Cacciatore

Ingredients

- 2 rabbits, cleaned and cut up
- ½ cup all-purpose flour
- ¼ cup vegetable oil
- 1 10.5-ounce can condensed cream of chicken soup
- 1½ cup milk
- 2 cloves garlic, minced
- 1 medium green bell pepper, cut into thin strips
- 2 medium onions, cut into thin strips
- 1 24-oz. jar tomato pasta sauce
- 1 cup fresh sliced mushrooms
- 1 teaspoon each dried oregano, basil, and parsley
- 1 tablespoon sugar

Method

1. Coat rabbit with flour.
2. Heat oil in skillet. Over medium-high heat, cook rabbit 10 to 15 minutes until browned.
3. Remove rabbit from skillet and drain on paper towels.
4. In slow cooker, mix can of cream of chicken soup and milk. Add rabbit and cook on low for five hours.
5. Remove rabbit from slow cooker. Let cool, then debone, and set aside.
6. In a 12-inch skillet, place rabbit meat and remaining ingredients. Bring to a boil, reduce heat, and simmer for 30 to 40 minutes. Serve with Parmesan cheese.

Cut out any areas on edible meat that are bloodshot from pellets. This may seem wasteful, but if these areas are left and cooked, they turn dark, may contain hair, fragments of bone and lead, and make rabbit less than fine eating.

Properly cleaned and rinsed, rabbits make excellent table fare. If you like Italian cuisine, couple this recipe with garlic bread and a salad for a fine meal. ▲

Mark Goodwin is a retired teacher, avid outdoorsman, and freelance writer who lives in Jackson, Missouri.

THE FIGHT AGAINST WHITE-NOSE SYNDROME

**New treatment offers hope
for Missouri's threatened,
beneficial cave bats**

BY BONNIE CHASTEEN



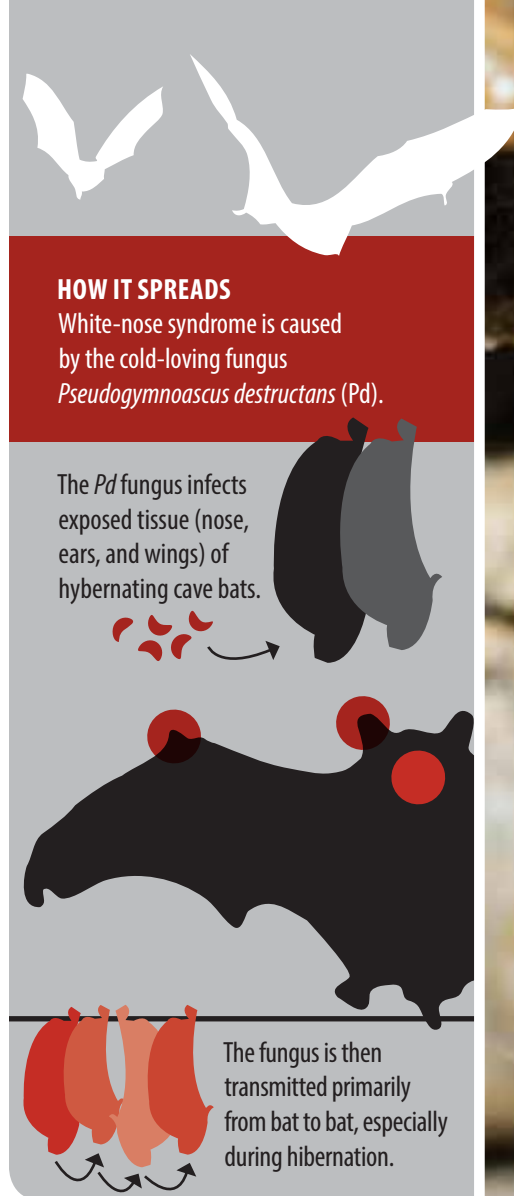
Little brown bats hibernate in a cave. The one on the left shows signs of white-nose syndrome (WNS).

IN OCTOBER, HALLOWEEN BATS and other spooky decorations appear. But for many of Missouri's real bats, October is mating season. During this month, little brown bats and other cave-hibernating species will gather nightly near cave and mine entrances to participate in an activity known as swarming. This social, pre-hibernation behavior involves flying into and out of the hibernation sites and circling near the entrance. The majority of mating activity occurs during fall swarming, even though young are not born until late spring or early summer.

As temperatures drop over the next several weeks, swarming behavior will give way to hibernation, and cave bats will congregate in caves and mines to escape winter's deadly cold. Unfortunately, many may succumb to a killer known as white-nose syndrome (WNS) before spring.

WNS THREATENS CAVE BATS AND THEIR ECOSYSTEMS

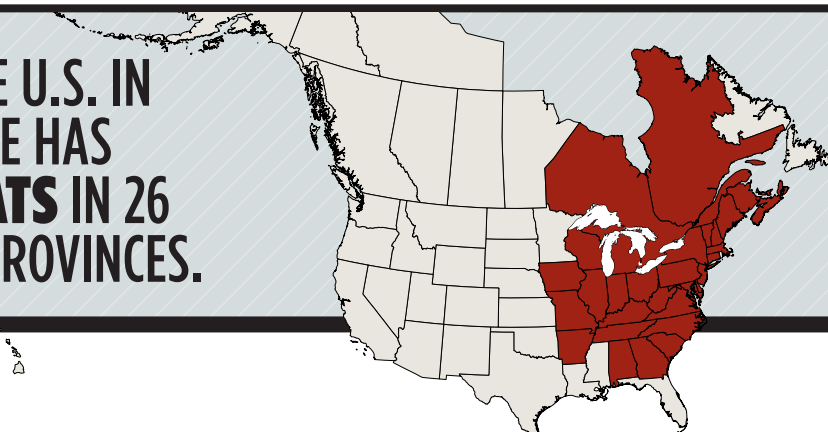
White-nose syndrome targets bats, and its methods of destruction rival those of any Halloween monster. WNS is an alien invader. It's caused by the fungus *Pseudogymnoascus destructans* (Pd), which was likely introduced to the United States from Eurasia about 10 years ago. This cold-loving fungus infects the exposed tissues — mainly the nose, ears, and wings — of hibernating cave bats, producing a fuzzy white growth. Worse,



it disrupts the bats' hydration and hibernation cycles. Agitated, thirsty, and hungry, infected bats leave their hibernacula (caves or mines where bats gather to hibernate) to seek water and food in the worst part of winter. Eventually, exhausted and dehydrated, many freeze or starve to death.

The Pd fungus spreads mainly from bat to bat, especially during hibernation when thousands come into close contact with each other. The fungus doesn't appear to profoundly affect bats in its native Eurasia, and it is not known to affect other animals or humans at all. But

SINCE ITS APPEARANCE IN THE U.S. IN 2006, WHITE-NOSE SYNDROME HAS KILLED OVER 5.7 MILLION BATS IN 26 STATES AND FIVE CANADIAN PROVINCES.





PHOTOGRAPHS BY SHELLY COLATSKIE

Above: Little brown bats exhibiting signs of WNS.
Left: Cavers and biologists survey a gray bat cave for signs of WNS.

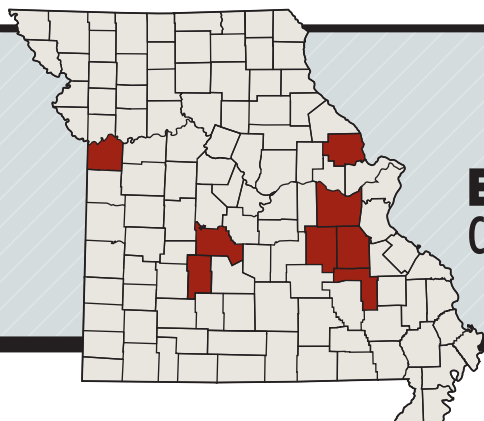


it has proven devastating for cave bats in North America. Since its appearance in New York State in 2006, it has killed over 5.7 million

bats in 26 states and five Canadian provinces. Biologists report heart-breaking discoveries of mass deaths in and near caves where WNS has

struck. They have found piles of bat bones and fur so large and jumbled that counting individual victims is virtually impossible. In most sites, however, carcasses are never found, but the numbers of hibernating bats decline precipitously.

As the Bat Conservation International website (batcon.org) notes, "The impact of this disease is unprecedented. Since bats are the primary predators of night-flying insects, we can expect to see significant ecosystem changes in the coming years."



**SINCE ITS APPEARANCE
 IN MISSOURI IN 2010,
 EIGHT COUNTIES HAVE
 CONFIRMED WHITE-NOSE
 SYNDROME IN CAVES.**



We may also expect to see changes in food yields and possibly in food prices. The value of bats to the U.S. agricultural industry is estimated at \$23 billion a year. Without bats to provide free insect control, farmers will have to find and pay for other ways to control crop pests. These costs will most certainly be passed along to shoppers.

NEW TREATMENT OFFERS HOPE

Last May, cave bats and people who appreciate their role in nature finally got a bit of good news. Georgia State University research scientist, Dr. Chris Cornelison, and Dr. Sybill Amelon, a research wildlife biologist with the U.S. Forest Service based in Columbia, Missouri, developed an experimental treatment from the native soil bacterium, *Rhodococcus rhodochrous*. This treatment proved to inhibit *Pd* fungus growth, and

Left: A newly discovered gray bat hibernaculum. Below: MDC Wildlife Management Biologist Kevin Hedgpeth swabs a big brown bat to test for WNS.



BAT FACTS AND FALLACIES

Throughout history, bats have gotten a bad rap. Folk tales, literature, and horror films are full of stories about bats sucking human blood and being associated with witches and vampires. Here's the truth about bats in Missouri.

- » Bats don't prey on humans. Only the vampire bat, a native of Mexico and Central and South America, drinks blood, usually from chickens, cows, horses, or goats. All species of Missouri bats eat flying insects.
- » Bats *can* move into your house (especially attics) and other buildings if they find an opening. Make sure your house or outbuildings, especially the upper stories and attic, are sealed against nuisance wildlife, including bats, squirrels, and birds.
- » Bats are not flying rodents. They have their own order, Chiroptera, which means, "hand-wing." Although their exact placement in the animal kingdom is still uncertain, recent DNA evidence indicates they may be more closely related to primates (including humans).
- » Bats *are* associated with rabies. In Missouri, they are the mammal most commonly infected with rabies. To be safe, never handle a bat with your bare hands, and see a doctor if you feel you've been exposed to the rabies virus in any way.

scientists applied it to bats that had been infected with WNS last winter. To do this, they placed infected, hibernating bats and Petri plates containing the soil bacterium strain in large coolers for 48 hours. As a result, the bats showed signs of better health and increased survival this spring. To celebrate this milestone, a group of collaborating biologists,

bat conservationists, and supporters gathered at the Mark Twain Cave complex in Hannibal on May 19 to release several treated bats back into the wild.

Event participants said, while more research is needed before scientists know whether the treatment is widely effective, they are "very encouraged."

Department of Conservation Resource Scientist Tony Elliott, who participated in efforts to collect and treat infected bats, says that the results mark "a good first step" in the effort to find a cure. "We're trying to walk a fine line between optimism and evidence," Elliott says. "This first trial provides hope, but we can't call it a cure yet. The treatment looks like it helped hibernating bats make it through one winter. But we don't know if it will help them survive following winters. They could get re-infected."

However, Elliott says that reports out of the Northeast suggest that long-term survival and recovery are possible. This is encouraging, "but we've started seeing some regional-



level declines,” he says. “It would be surprising if this treatment can strengthen local bat populations quickly enough to prevent rapid decline across Missouri.”

YOU CAN HELP

Time will tell whether the new treatment (or others now being researched and developed) can help reduce WNS’s impact on bat populations.

Meanwhile, everyone can do a little bit to help Missouri’s bats stay strong and healthy during their active months, so they can go into hibernation in the best possible shape.

Above: Assistant Cave Ecologist Shelly Colatskie enters a gray bat hybernaculum. Right: MDC Resource Scientist Tony Elliott surveys gray bats, estimating how many bats are in the cave.

Cave Responsibly

When *Pd* appeared in Missouri in 2010, the Department restricted access to conservation area caves that were then open to public use. In fact, all but a few public caves in Missouri currently require access permits for entry.

If you do enter caves, avoid entering those with significant bat populations during winter months. Disturbing hibernating bats can cause them to use up the fat reserves they need to survive the winter, especially when they are already stressed by WNS. Always disinfect hard-surface gear with bleach or other household cleaner and submersible gear in hot water at 122 F before and after trips to avoid the possibility of contributing to the spread of the *Pd* fungus.



Installing a bat house on your property will help bats survive winter by giving them a safe, secure place during their active summer months.

Choose, Install, and Maintain Good Bat Houses

The majority of bats that hibernate in caves actually roost in trees and other structures during the spring and summer. You can help them survive winter by giving them a safe, secure place to live and feed during their active months. As Elliott says, “A stable, reliable location in summer helps them be as healthy as they can be for winter.”

Use these guidelines to research, buy, install, and maintain a bat-worthy bat house on your property:

- The larger the bat house, the better, and the more microclimates it offers.
- Place the bat house in an open area. This gives bats the space they need to enter and exit. A tree trunk is almost always too shaded.

- Bat pups can’t regulate their body temperatures. To stay active and growing, they need a house that’s sunny and warm — but not too warm. If you’re comfortable having bats near your house, attach the bat house to a sunny east or southeast exposure. Before you do, be sure to check your house for cracks and holes, especially around the attic.
- If you’re not comfortable attaching the bat house to your house, put it on poles or on a structure that’s at least 15 feet high. The best arrangement is to hang the bat house between two sturdy poles or posts.
- Clean it out every year. Mud daubers, in particular, like to use bat houses.

SEND US A BAT SIGNAL

If you find a dead or dying bat during the winter (November to March) with obvious signs of white-nose syndrome — powdery white fuzz on the muzzle or wings — please let us know.

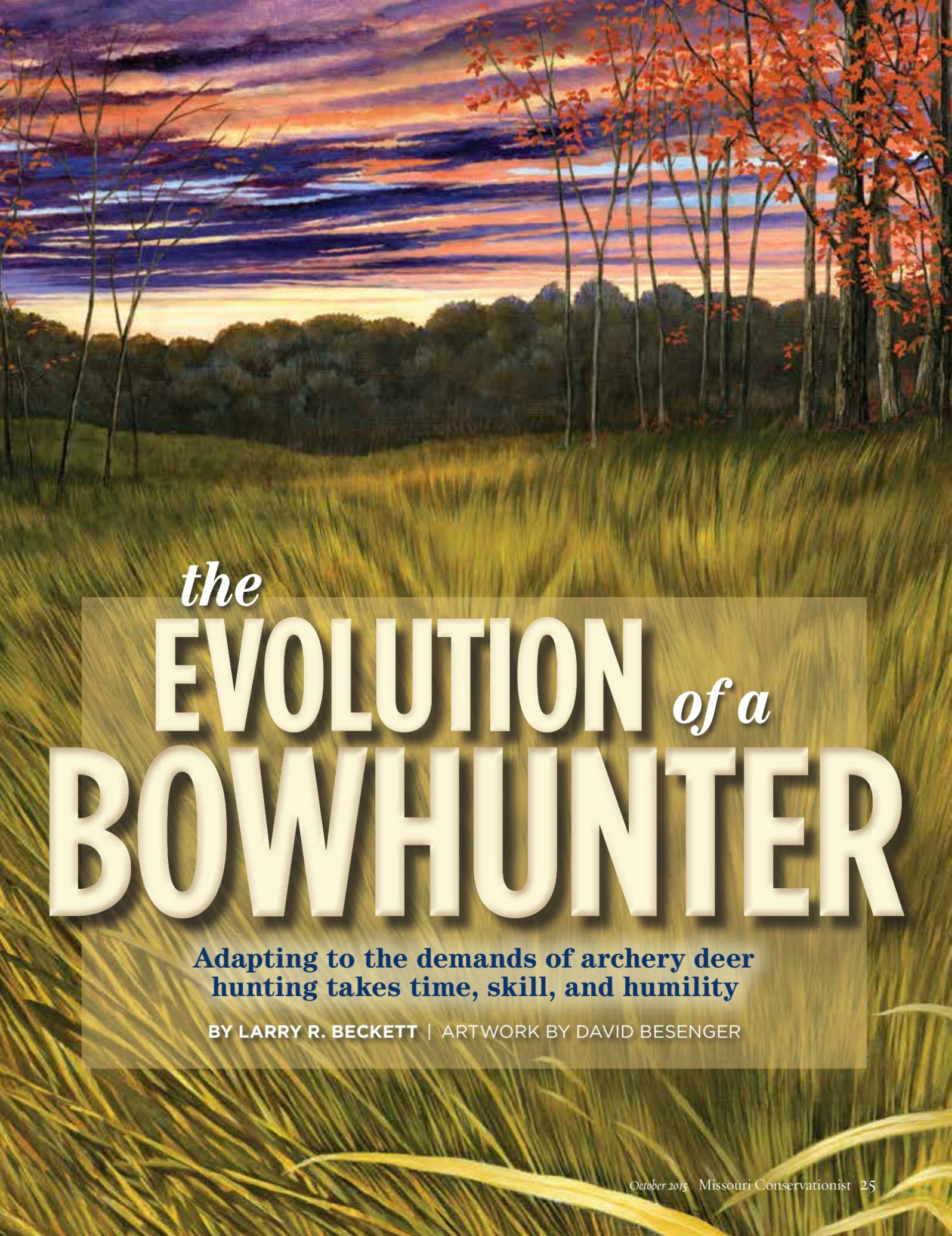
1. Do NOT handle the bat. Try to scoop it up with a container or other hard-surfaced item. If you must handle the bat, wear THICK leather gloves. This protects you from possible exposure to rabies — see *Bat Facts and Fallacies* on Page 21.
2. Take a good digital photo.
3. Email the photo, along with the location (GPS coordinates would be great), date, and time you saw it to Anthony.Elliott@mdc.mo.gov or Shelly.Colatskie@mdc.mo.gov. Details about whether you found the bat near a cave and if you saw other bats entering or exiting the cave will be useful, too. These reports help MDC and other researchers know where and to what extent WNS is affecting Missouri’s bats.

Join a Bat Conservation Group and Support WNS Research

Scientists at Georgia State University and elsewhere were able to expand their research in part through funding and support from nonprofit organizations like Missouri Bat Census (facebook.com/MissouriBatCensus), Bat Conservation International (batcon.org), and the Organization for Bat Conservation (batconservation.org). ▲

Bonnie Chasteen is associate editor for the Missouri Conservationist. She enjoys communing with bats and other creatures of the night, including owls, sphinx moths, and the occasional trick-or-treater.





the
EVOLUTION *of a*
BOWHUNTER

**Adapting to the demands of archery deer
hunting takes time, skill, and humility**

BY LARRY R. BECKETT | ARTWORK BY DAVID BESENGER

I WASN'T ALWAYS A BOWHUNTER.

Like many Missourians, I began my game-chasing career armed with a .22, keeping an eye out for small game amongst the treetops and brier patches.

After I honed my shooting skills, my father introduced me to deer hunting when I was 15. A new Marlin lever-action rifle marked the occasion, and my introduction to the art of pursuing the elusive whitetail began. The skills and patience that I learned while small-game hunting paid off, and a mature doe soon filled the freezer.

I was hooked. Rifle hunting for whitetail became part of my life.

However, I quickly found the weeklong firearms deer season didn't provide enough time to pursue my newfound passion.

My First Bows

Although I knew nothing about bowhunting, the opportunity to chase deer for three months became too much to resist. I bought a recurve bow at a garage sale and did my best to aerate a hay bale in the backyard. Since I was self-taught, I wasn't aware of the dangers of dry-firing a bow (pulling the string back and letting go without an arrow loaded). I spent so much time perfecting my form by dry-firing that the upper limb of the bow snapped, and I soon found myself in the market for a new bow. Lesson learned.

I purchased a compound bow. I knew nothing about draw length or draw weight and set both to the maximum. I matched the heavy bow with 34-inch aluminum arrows tipped with broadheads. The long, heavy broadheads, known for veering off course, mixed with an overextended draw length were not a recipe for success. But I was determined to become a successful bowhunter.

A Goal Set

While I continued to sharpen my bowhunting skills, I also rifle hunted for whitetail each No-

vember. I would head into the hardwood forests of southwest Missouri, lean against the base of a mighty oak, lay the rifle across my lap, and close the deal when it came time.

During my hunts, I noticed many of the deer I took during rifle season were at close ranges — 30, 20, and sometimes even 10 yards. Given this information and my well-established fear of heights, I set a goal — harvest my first deer with a bow without the use of a blind or stand.

Opportunities, Mistakes, and Finally Success

When I started bowhunting, the near misses were numerous, but each encounter was an opportunity to learn from my mistakes. Season after season, unique challenges would present themselves.

It seemed like I was jinxed.

Finally, a mere 23 years after I picked up a bow for the first time, the stars aligned and I connected on a small buck at 7 yards. The curse was lifted. I cheered. I gave thanks. I wept.

GETTING STARTED

Want to get started in the sport of bowhunting? Here are some things to consider:

Visit your local archery shop. They can fit you with a bow with the correct draw length and weight, which can greatly increase accuracy, success, and enjoyment.

Contact an archery club or attend a 3-D shoot. Shooting leagues and 3-D competitions are a great way to gain valuable shooting experience and knowledge from other archers.

Find a friend who bowhunts. Learn from each other and share the ups and downs of bowhunting.

Impatience and bowhunting do not mix. Practice patience by staying in the stand for just five more minutes each time out.

Practice shooting. Practice is invaluable for success, but it should also include "real hunting" practice. Put on the clothes you will be wearing while hunting, shoot out of a blind or tree stand if you plan to hunt that way, and practice shooting while standing and sitting so you are prepared in case buck fever takes over.

BASIC GEAR

When starting out, keep it simple. There are lots of products for bowhunters, but the extras rarely lead to success. A properly fitted **bow with matching arrows and broadheads** is all you truly need. Other items, such as a grunt call, can be added later.



Ground blinds are a great way to start bowhunting. Blinds offer just the right amount of cover to mask a hunter's movements and scent. Some deer might be cautious of a blind, but they are also cautious of movement in the open. For those that have trouble sitting still, a blind can increase success.



When hunting out of a tree stand, always wear a **safety harness**. There are many products that allow a hunter to be tethered from the moment they leave the ground, which greatly reduces the chance of injury.



Facing My Fears

I continued to bowhunt from the ground with success, but decided to face my fear of heights. I ventured into the world of tree stands.

The view from a tree stand was like seeing the woods through someone else's eyes. The advantages of watching approaching deer, staying out of their sight, and reducing the human scent at their level were exponential. Opportunities for observing whitetail behaviors came more frequently, which increased my ability to predict this often-unpredictable animal, and resulted in greater success.

A Challenge Presents Itself

After several years, I became as confident in my ability to put meat in the freezer with a bow as I was with a gun. When a mature eight-point whitetail showed up on my trail cam photos, I knew I was ready to challenge my skills as a bowhunter in a new way. I decided to focus my entire season on that particular deer. I was in for a lesson in humility.

My tree stand was 50 yards from my back door, so I had no excuses for not putting in the time. Day after day, I waited patiently for the buck to return to the trail where his image was previously captured. Each crack of a limb,



crunch of a leaf, or click of a rock produced a heart-racing rush of adrenaline followed by a crash of spirit as a doe, smaller buck, or other animal appeared.

The month of September and countless hours in the stand passed with no sign of the buck.

October began the same way and my hopes began to wane.

During the second week of October, I climbed out of the stand after dark and walked the short trail to my house. I stood on the back deck, peering into the darkness and questioning my decision to dedicate my entire season to a single image of a deer.

Then I heard a sound. It was the sound of deer running. It wasn't the get-out-of-Dodge, high-speed running that I had heard so many times when spooking whitetails. This was the sound of two deer, playing cat and mouse with an occasional grunt from the pursuer. Despite the invisibility of the two deer in the blackness of night, I just knew that the deep, guttural sounds were coming from the object of my pursuit.

My spirits were renewed.

The next morning, I was strapped in my metal perch two hours before daylight. I waited, eyes wide open, for the sun to peek over the

hill and illuminate my surroundings. Morning came and went with only the sight of a couple meandering does, but I remained in the stand. I wasn't leaving until the buck showed or darkness fell again.

Shortly before sunset, I caught a glimpse of movement through the woods. Peering through the binoculars, I saw a doe walking. She stopped and looked behind her. I scanned the woods and spotted another deer, but all I could see were its stiff, muscular legs and blackened tarsal glands. The pair was at 100 yards, and she was leading him away. I could watch them leave or do something about it.

I pulled a grunt call from my pack and blew it out of desperation. The walking stopped. I blew the call again. The walking started again, but this time it was by only one deer, the buck, and he was headed my way. My heart raced, my body shook, and my legs quit working. I couldn't stand up from my seated position. When he reached the trail beside my stand, I settled the sight pin, squeezed the trigger on the release, heard the clang of the bow's bottom limb on the top of my tree stand ladder, and watched the arrow fly over the buck's back.

The Buck Stopped Here

I had two more encounters with the buck that season, but flashbacks to my first encounter and my intense desire to focus on this particular deer only resulted in frazzled nerves and two more clean misses.

As the season drew to a close, Missouri was socked with a brutal ice storm, resulting in downed trees and power loss to thousands of homes, including mine. On the ninth day of repairing damage, removing fallen trees, and temperatures in the teens, I decided I needed a break and one last time in the stand for the year.



THEN I HEARD A SOUND. NOT THAT GET-OUT-OF-DODGE, HIGH SPEED RUNNING I HAD HEARD WHEN SPOOKING WHITETAILS. THIS WAS COMING FROM THE OBJECT OF MY PURSUIT.

The next morning, however, I peeked out from under the covers, felt the frigid air in the house, and talked myself out of it. When I crawled out of bed later that morning, I stood at the back window staring into the frozen woods and watched as the eight-point buck walked out of the brush and stood underneath my stand.

He had won.



The season-long battle was an incredible experience, but I never again focused on one particular deer. I had great respect for that buck, but the intense focus had somehow caused me to lose an appreciation for the many encounters with other deer. I wanted to enjoy every moment.

Bowhunting continues to be a challenging and rewarding method of pursuing one of Mis-

souri's most popular game animals. Each year, as I enter the woods, I know that many lessons will be learned, experience will be gained, and emotions will be endured. This is my eternal evolution as a bowhunter. ▲

Larry R. Beckett is a writer, photographer, and videographer. He grew up in southwest Missouri.

Elk

WHEN THE DAYS get shorter and the mornings more crisp, that's my cue to head to the Ozarks.

For the past several years, one of my favorite things to do is visit Peck Ranch Conservation Area to photograph the elk herd. October and November are the perfect time of year for elk viewing. The males, known as bulls, sport fresh antlers and strut around proudly with their heads held high and chests puffed out. Younger males constantly scuffle, locking antlers and pushing each other to establish dominance. The females, known as cows, are still very protective of their calves, but not nearly as skittish as other seasons of the year. A few alpha males keep their groups of females, known as harems, close by and snort or charge at the younger males if they try to approach.

It never ceases to amaze me how these massive animals can move so quickly and quietly, emerging out of the woods and settling over food plots at sunrise as subtly as the morning mist. Their behavior is quite different from that of Missouri's more familiar white-tailed deer. While deer seem to be skittish, elk have a more assured demeanor. I can stop my vehicle to change a lens or fiddle with a tripod only to look up and see a hundred elk in what was an empty field just a minute before. When they tire of my presence, they gently slip away and move to nearby wooded ridgelines with a swiftness that is impressive.

Elk were extirpated from Missouri many decades ago. The Department, in partnership with Rocky Mountain Elk Foundation, Safari Club International, Missouri Conservation Heritage Foundation, Kentucky Game and Fish, and others, began to reintroduce elk in Missouri in 2011.


I am fortunate to have the opportunity to work closely with the Department's elk researchers, documenting various projects and milestones as we learn more about the Missouri herd. Although I could go out with the researchers to find the elk with radio-tracking collars, I get my best photos from the elk driving tour that is open to the public. The elk are right along the main roads, milling around the big food plots. The edges of day are the best chance to see the herd, as they typically come out at sunset and return to the woods shortly after sunrise.

When this photo was taken, I was stopped for nearly 30 minutes on the main thoroughfare as the whole herd blocked the road while grazing 50 feet from my vehicle. Best traffic jam ever.

If you decide to take a trip this fall to Peck Ranch, here are some elk-viewing tips:

- » Peck Ranch hosts managed deer hunts in the fall and winter, and closes during these times, so call ahead before making the trip.
- » Bring binoculars or a long lens for your camera and plan to be there at sunrise or sunset. My best shots have come from the wildlife food plots along Road 1, and they are the most convenient on the area. You can certainly see the elk during daylight hours, but chances will diminish greatly since they stick to the shaded woods.
- » These are wild animals and while there is a self-guided driving tour, Peck Ranch is not a zoo. The elk are free to roam the area and don't keep a convenient schedule for our sake. There isn't a guarantee you will find the herd, but the scenery is beautiful, and there are other wildlife viewing opportunities. I have seen numerous turkey, deer, coyotes, foxes, and even bobcats from my vehicle.

—Story and photograph by David Stonner

 500mm lens • f/4 • 1/400 sec • ISO 400

*We help people discover nature through our online field guide.
Visit on.mo.gov/1M3cWgI to learn more about Missouri's plants and animals.*





Whetstone Creek Conservation Area

Whether you love hiking, bird watching, fishing, or hunting for small game, deer, or turkey, this Callaway County area offers a variety of ways to enjoy the great outdoors.

NOTHING BEATS THE crisp, cool feel of the October air while you're outdoors listening to the very distinguishable call of the northern bobwhite quail. This species is a common find on Whetstone Creek.

Federal Pittman-Robertson funds, collected through an 11 percent excise tax on sporting arms and ammunition, helped purchase the area near Williamsburg in 1976. The 5,147-acre area is managed as a Quail Emphasis Area, or an area where management efforts include techniques intended to improve habitat for quail and other small game. The area's namesake creek is an excellent example of an Ozark border stream and is designated a state natural area. Management of the stream focuses on maintaining a healthy forested stream corridor so that the state-threatened blacknose shiners continue to find suitable habitat.

Prior to settlement, Whetstone Creek was home to tallgrass prairie, savanna, woodland, and forest habitats. Although this habitat diversity was present, the majority of the property consisted of upland woodlands and was managed for cattle production through the 1900s. The area even had high fences to contain and raise bison from around 1960 until the Department purchased the property in 1976.

When the Department purchased the land, major habitat work included removing fescue, planting the area in native grasses and forbs, and creating quality woodlands. Through the use of permittee farming, prescribed fire, woodland



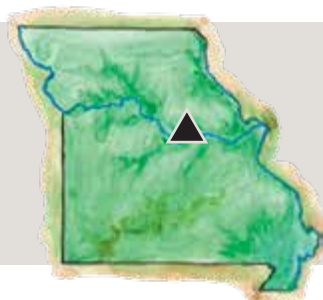
24–70mm lens • f/5 • 1/200 sec • ISO 200 | by David Stonner

management, and the creation of early successional habitat, the area has grown strong populations of rabbit, squirrel, and turkey that may be hunted during prescribed seasons.

Deer have also benefited from the overall management of the area. The Department conducts several deer density surveys each year, and Whetstone currently has about 45 deer per square mile. Deer hunting is allowed on the area only through the managed hunt system.

But hunting isn't the only attraction at Whetstone. The area also has about 65 acres of stocked lakes and ponds that offer a good selection of bluegill, bass, and channel catfish. Morel hunting, bird watching, and wildflower viewing are also great reasons to visit. If that's not enough, Whetstone Creek has two geocaches, two designated camping areas, several miles of trails for hiking, and an unstaffed shooting range. Whetstone Creek Conservation Area provides the public with many opportunities to come out, enjoy the outdoors, and discover nature.

—Nicky Walker, area manager



Whetstone Creek Conservation Area

Recreation Opportunities: Hunting, hiking, bird watching, camping, canoeing, wildlife viewing, outdoor photography, geocaching, unstaffed shooting range

Unique Features: Scenic hiking trails, Whetstone Creek Natural Area, oak woodlands

For More Information: Call 573-815-7900 or visit on.mo.gov/1hnAAtd



MDC

DISCOVER nature

To find more events near you, call your regional office (phone numbers on Page 3), or visit mdc.mo.gov and choose your region.

ADVENTURE BIRDING

OCT. 10 • SATURDAY • 8 A.M.–NOON

Central Region, Runge Conservation Nature Center, Hwy 179, Jefferson City, MO 65109

Registration required, call 573-526-5544

Ages 11 and older, children must be accompanied by an adult

This will be a birding hike along one of the shorter scenic trails of the Lake of the Ozarks State Park. Depending on the weather, we may find winter residents or migrants. Dress for the weather and bring binoculars (or borrow a pair of ours). We will carpool from Runge.

WHITETAIL DEER FROM FIELD TO FREEZER

OCT. 13 • TUESDAY • 6–8 P.M.

St. Louis Region, Jay Henges Shooting Range and Outdoor Education Center,

1100 Antire Road, High Ridge, MO 63049

Registration required, call 636-938-9548

Families, ages 9 and older

Deer is a healthy, low-cholesterol, lean protein with no added hormones or antibiotics. Come and learn the steps necessary to process your deer meat yourself. Watch as we demonstrate how to skin and butcher a deer in simple easy steps with a minimum amount of equipment. You'll learn tips on how to make sure your venison is the best quality possible.

DISCOVER NATURE — FISHING LECTURE SERIES: SMALLMOUTH BASS STREAM FISHING

OCT. 14 • WEDNESDAY • 7–8 P.M.

Southwest Region, Springfield Conservation Nature Center, 4601 S. Nature Center Way, Springfield, MO 65804

Registration required, call 417-888-4237

Ages 7–adult

Ozarks streams offer excellent smallmouth bass fishing. Learn what type of tackle to use, places to go, and the current research and management activities surrounding this strong fighting fish from Conservation Department Fisheries Management Biologist Dave Woods. This is the first in a series of monthly indoor programs to prepare you for future fishing trips.

HOWLOWEEN!

OCT. 16 • FRIDAY • 6–9 P.M.

Kansas City Region, Anita B. Gorman

Discovery Center, 4750 Troost Avenue, Kansas City, MO 64110

No registration required,

call 816-759-7300 for information

All ages, families

HOWLoween is back and we want you to join the fun! Discovering nature's creepy creatures is just part of the nighttime fun. Take a hike on the Wild Side Walk to get up close with some of Missouri's nocturnal wildlife. Kids

6

IDEAS FOR FAMILY FUN

will have a howling good time exploring nature stations like Track or Treat, The Bone Yard, The Bat Cave, and much more. It will be a howling fun, free, and unforgettable event for the entire family.

FALL FESTIVAL

OCT. 17 • SATURDAY • 4–7:30 P.M.

Southeast Region, Cape Girardeau

Conservation Nature Center, 2289 County Park Drive, Cape Girardeau, MO 63701

No registration required,

call 573-290-5218 for information

All ages, families

Meet the magnificent turkey vulture in our live bird presentations at 4:30, 5:30, and 6:30 p.m. Take a stroll on one of our naturalist-led hikes to discover more about wild scavengers. Sit outside and enjoy a fire and a few fall treats or stay inside for crafts. Bring the whole family for the fun!

BEGINNER'S WHITETAIL DEER HUNTING CLINIC

OCT. 24 • SATURDAY • 8 A.M.–5 P.M.

St. Louis Region, Jay Henges Shooting

Range and Outdoor Education Center,

1100 Antire Road, High Ridge, MO 63049

Registration required, call 636-938-9548

Ages 6 and older

The Beginner's Whitetail Deer Hunting Clinic is designed for the first-time or novice deer hunter. The clinic will inform and educate first-time hunters about the characteristics of deer, their habits, and behaviors. The clinic will also offer tips and techniques for hunting these incredible animals in various habitats and weather conditions. Youth under 16 years old must be accompanied by an adult.



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I Am Conservation

Once a week after school, a group of kids ages 5–11 from Rock Bridge Elementary in Columbia walk through the woods behind their school as part of the walking school bus program. Started in spring 2010 by Cindy Hall, the walking school bus program encourages students to walk to and/or from school under adult supervision. “I had heard about the walking school bus happening at other schools in town and thought it sounded like a great idea and program,” said Hall. “I knew our school did not have a lot of sidewalks coming to it, especially at the time we started the program, and then thought of trying the walk through Rock Bridge State Park, which is located right behind the school.” It proved to be popular — more than 150 kids walked to school on the program’s first day. Over the years, it has evolved into an after-school walk once a week. With the help of parent volunteers, more than 80 kids walk the same one-mile path through the park to meet waiting parents at a playground near the trail’s end. Rock Bridge Elementary participates in the Missouri Department of Conservation’s Discover Nature Schools program, so the kids can observe things they study in the classroom as well as learn new lessons along the way. “We need to give kids more time to just go out and explore nature, and our walk gives them a fun way to do so,” said Hall. —*photograph by Noppadol Paothong*